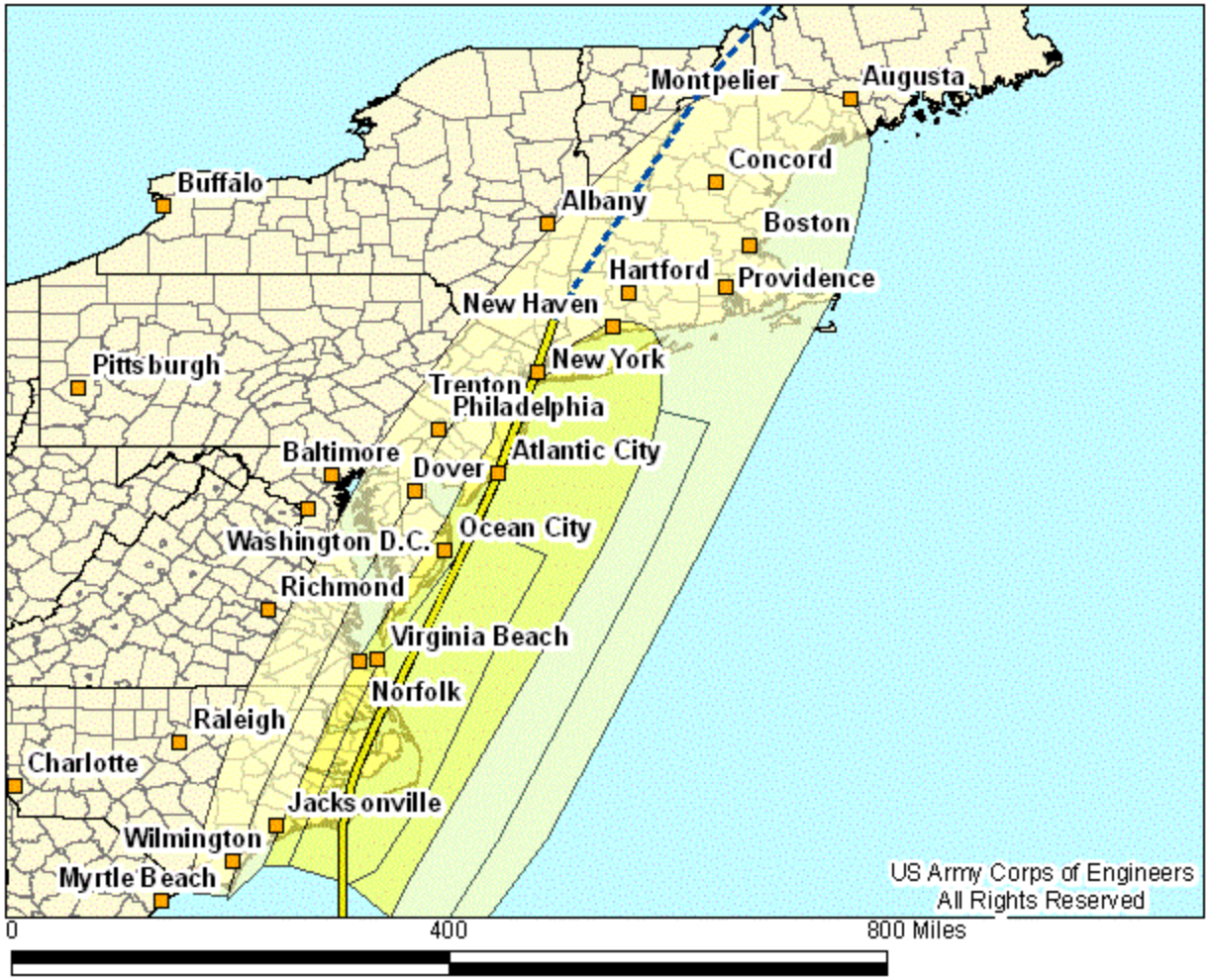
US Army Corps of Engineers

Hurricane Irene Projected Damage Areas

Landfall Plus About 1 Hours

For Planning Purposes Only!



Post Landfall Projected Damage Areas

This model is based on a Category 1 storm making landfall western end of Long Island, NY.

Forecast Track
Historic Track

Projected Damage Areas

- CAT 0-type damage
- CAT 1-type damage
- CAT 2-type damage
- CAT 3-type damage
- CAT 4-type damage
- CAT 5-type damage

Information provided on this page displays a projected or actual Category 1 storm making landfall western end of Long Island, NY. These projections are based on information from the NHC (1100 EDT 08/28/2011) forecast and extrapolated by LRL staff to represent a landfall condition that has either occurred or may occur in the near future.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Projected Damage Areas

Generated By:
Siemsen, LRL 1130 EDT 08/28/2011

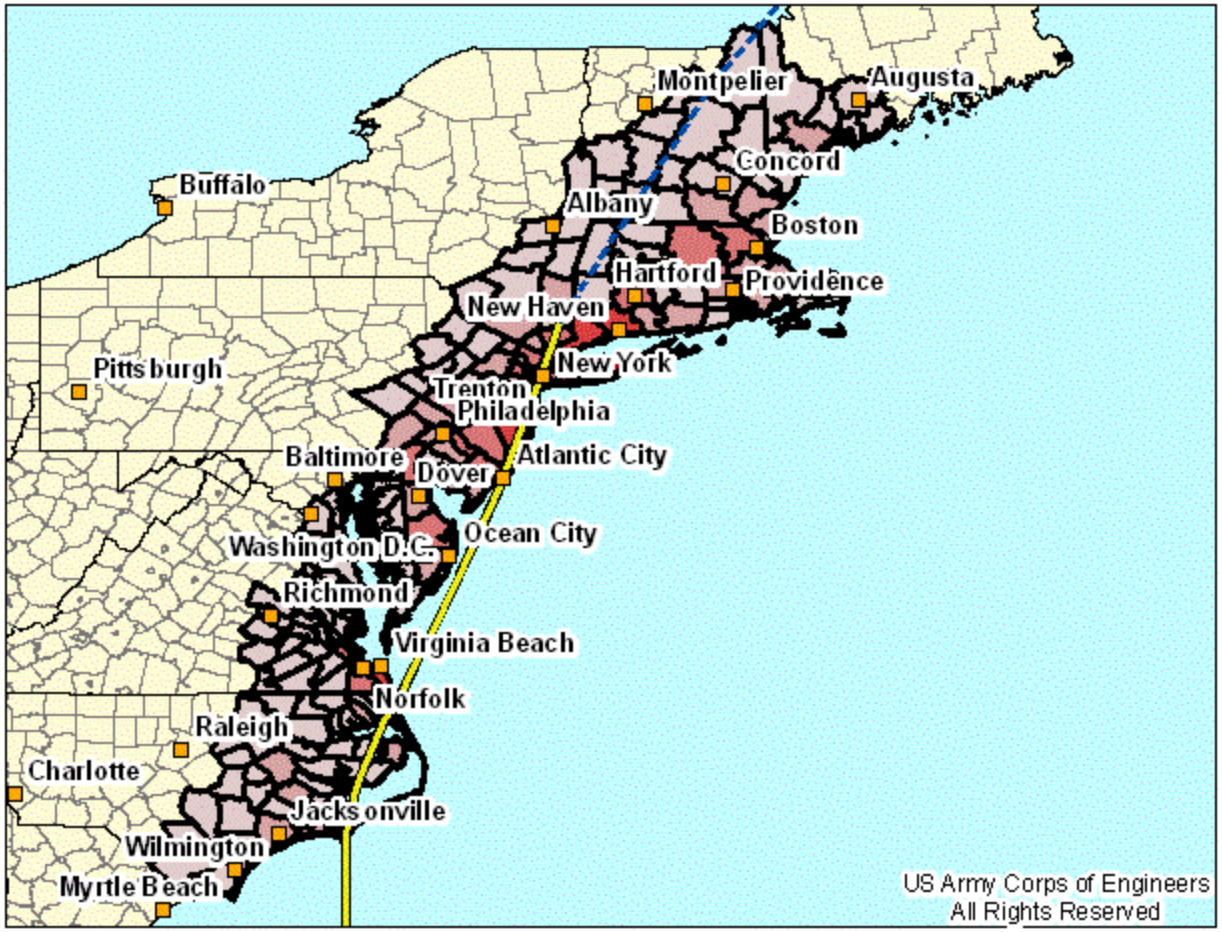
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Debris Model

Landfall Plus About 1 Hours

For Planning Purposes Only!



Post Landfall Debris Model Results

New Jersey - 5,735,000 Yards
New York - 4,814,000 Yards
Virginia - 2,658,000 Yards
North Carolina - 2,142,000 Yards
Massachusetts - 2,048,000 Yards
Connecticut - 1,889,000 Yards
Pennsylvania - 1,262,000 Yards
Delaware - 655,000 Yards
New Hampshire - 591,000 Yards
Maryland - 522,000 Yards
Rhode Island - 408,000 Yards
Maine - 319,000 Yards
Vermont - 131,000 Yards

Model results per County on following page

This model is based on a Category 1 storm making landfall western end of Long Island, NY.

Forecast Track
Historic Track

Debris

- < 100,000 cubic yards
- 100,000 - 249,999 cubic yards
- 250,000 - 499,999 cubic yards
- 500,000 - 999,999 cubic yards
- >1,000,000 cubic yards

Information provided on this page displays a Category 1 storm making landfall western end of Long Island, NY. These projections are based on information from the NHC (1100 EDT 08/28/2011) forecast. The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Debris Model	
Generated By: Siemsen, LRL 1130 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Irene Debris Model

Landfall Plus About 1 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
Connecticut		Fairfield County	530,000
		Hartford County	329,000
		Litchfield County	91,000
		Middlesex County	103,000
		New Haven County	621,000
		New London County	107,000
		Tolland County	58,000
		Windham County	50,000
Connecticut	1,889,000		
Delaware		Kent County	115,000
		New Castle County	268,000
		Sussex County	272,000
Delaware	655,000		
Maine		Androscoggin County	46,000
		Cumberland County	121,000
		Kennebec County	16,000
		Lincoln County	8,000
		Oxford County	19,000
		Sagadahoc County	18,000
		York County	91,000
Maine	319,000		
Maryland		Anne Arundel County	7,000
		Calvert County	47,000
		Caroline County	19,000
		Cecil County	45,000
		Charles County	< 1,000
		Dorchester County	26,000
		Harford County	11,000

State	Yards per State	County	Yards per County
Maryland		Kent County	11,000
(continued)		Prince George's County	< 1,000
		Queen Anne's County	25,000
		Somerset County	27,000
		St. Mary's County	77,000
		Talbot County	24,000
		Wicomico County	101,000
		Worcester County	102,000
Maryland	522,000		
Massachusetts		Barnstable County	100,000
		Berkshire County	62,000
		Bristol County	158,000
		Dukes County	9,000
		Essex County	204,000
		Franklin County	35,000
		Hampden County	149,000
		Hampshire County	58,000
		Middlesex County	385,000
		Nantucket County	< 1,000
		Norfolk County	207,000
		Plymouth County	174,000
		Suffolk County	221,000
		Worcester County	286,000
Massachusetts	2,048,000		
New Hampshire		Belknap County	33,000
		Carroll County	39,000
		Cheshire County	40,000

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Debris Model

Generated By:
Siemsen, LRL 1130 EDT 08/28/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Debris Model

Landfall Plus About 1 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
New Hampshire		Coos County	8,000
(continued)		Grafton County	63,000
		Hillsborough County	136,000
		Merrimack County	74,000
		Rockingham County	124,000
		Strafford County	51,000
		Sullivan County	23,000
New Hampshire	591,000		
New Jersey		Atlantic County	306,000
		Bergen County	362,000
		Burlington County	387,000
		Camden County	420,000
		Cape May County	166,000
		Cumberland County	158,000
		Essex County	283,000
		Gloucester County	219,000
		Hudson County	226,000
		Hunterdon County	66,000
		Mercer County	279,000
		Middlesex County	342,000
		Monmouth County	712,000
		Morris County	210,000
		Ocean County	869,000
		Passaic County	219,000
		Salem County	44,000
		Somerset County	117,000
		Sussex County	75,000
		Union County	217,000
		Warren County	58,000
New Jersey	5,735,000		

State	Yards per State	County	Yards per County
New York		Albany County	4,000
		Bronx County	143,000
		Columbia County	32,000
		Dutchess County	111,000
		Greene County	18,000
		Kings County	349,000
		Nassau County	1,091,000
		New York County	126,000
		Orange County	137,000
		Putnam County	38,000
		Queens County	389,000
		Rensselaer County	34,000
		Richmond County	171,000
		Rockland County	101,000
		Suffolk County	1,666,000
		Sullivan County	10,000
		Ulster County	89,000
		Washington County	2,000
		Westchester County	303,000
New York	4,814,000		
North Carolina		Beaufort County	89,000
		Bertie County	32,000
		Bladen County	3,000
		Brunswick County	77,000
		Camden County	30,000
		Carteret County	241,000
		Chowan County	24,000
		Columbus County	5,000

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Debris Model

Generated By:
Siemsen, LRL 1130 EDT 08/28/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Debris Model

Landfall Plus About 1 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
North Carolina		Craven County	198,000
(continued)		Currituck County	81,000
		Dare County	132,000
		Duplin County	35,000
		Edgecombe County	30,000
		Gates County	18,000
		Greene County	10,000
		Halifax County	25,000
		Hertford County	24,000
		Hyde County	37,000
		Jones County	20,000
		Lenoir County	35,000
		Martin County	27,000
		Nash County	30,000
		New Hanover County	198,000
		Northampton County	12,000
		Onslow County	195,000
		Pamlico County	47,000
		Pasquotank County	119,000
		Pender County	54,000
		Perquimans County	29,000
		Pitt County	122,000
		Sampson County	8,000
		Tyrrell County	25,000
		Washington County	34,000
		Wayne County	60,000
		Wilson County	36,000
North Carolina	2,142,000		
Pennsylvania		Berks County	< 1,000
		Bucks County	180,000
		Chester County	106,000
(continued)		Delaware County	177,000
		Lehigh County	16,000
		Monroe County	4,000
		Montgomery County	210,000
		Northampton County	92,000
		Philadelphia County	465,000
		Pike County	12,000
Pennsylvania	1,262,000		
Rhode Island		Bristol County	23,000
		Kent County	71,000
		Newport County	36,000
		Providence County	224,000
		Washington County	54,000
Rhode Island	408,000		
Vermont		Bennington County	28,000
		Caledonia County	< 1,000
		Orange County	9,000
		Rutland County	4,000
		Windham County	43,000
		Windsor County	47,000
Vermont	131,000		
Virginia		Accomack County	67,000
		Charles City County	6,000
		Chesapeake city	322,000
		Chesterfield County	< 1,000

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Debris Model

Generated By:
Siemsen, LRL 1130 EDT 08/28/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Debris Model

Landfall Plus About 1 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
Virginia		Dinwiddie County	< 1,000
(continued)		Emporia city	4,000
		Essex County	7,000
		Franklin city	6,000
		Gloucester County	39,000
		Greensville County	4,000
		Hampton city	152,000
		Hanover County	< 1,000
		Henrico County	< 1,000
		Hopewell city	6,000
		Isle of Wight County	40,000
		James City County	50,000
		King William County	5,000
		King and Queen County	5,000
		Lancaster County	11,000
		Mathews County	13,000
		Middlesex County	12,000
		New Kent County	10,000
		Newport News city	281,000
		Norfolk city	346,000
		Northampton County	21,000
		Northumberland County	11,000
		Petersburg city	< 1,000
		Poquoson city	13,000
		Portsmouth city	159,000
		Prince George County	15,000
		Richmond County	5,000
		Southampton County	13,000
		Suffolk city	93,000
		Surry County	7,000
		Sussex County	8,000

State	Yards per State	County	Yards per County
Virginia		Virginia Beach city	853,000
(continued)		Westmoreland County	7,000
		Williamsburg city	7,000
		York County	60,000
Virginia	2,658,000		

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Debris Model

Generated By:
Siemsen, LRL 1130 EDT 08/28/2011

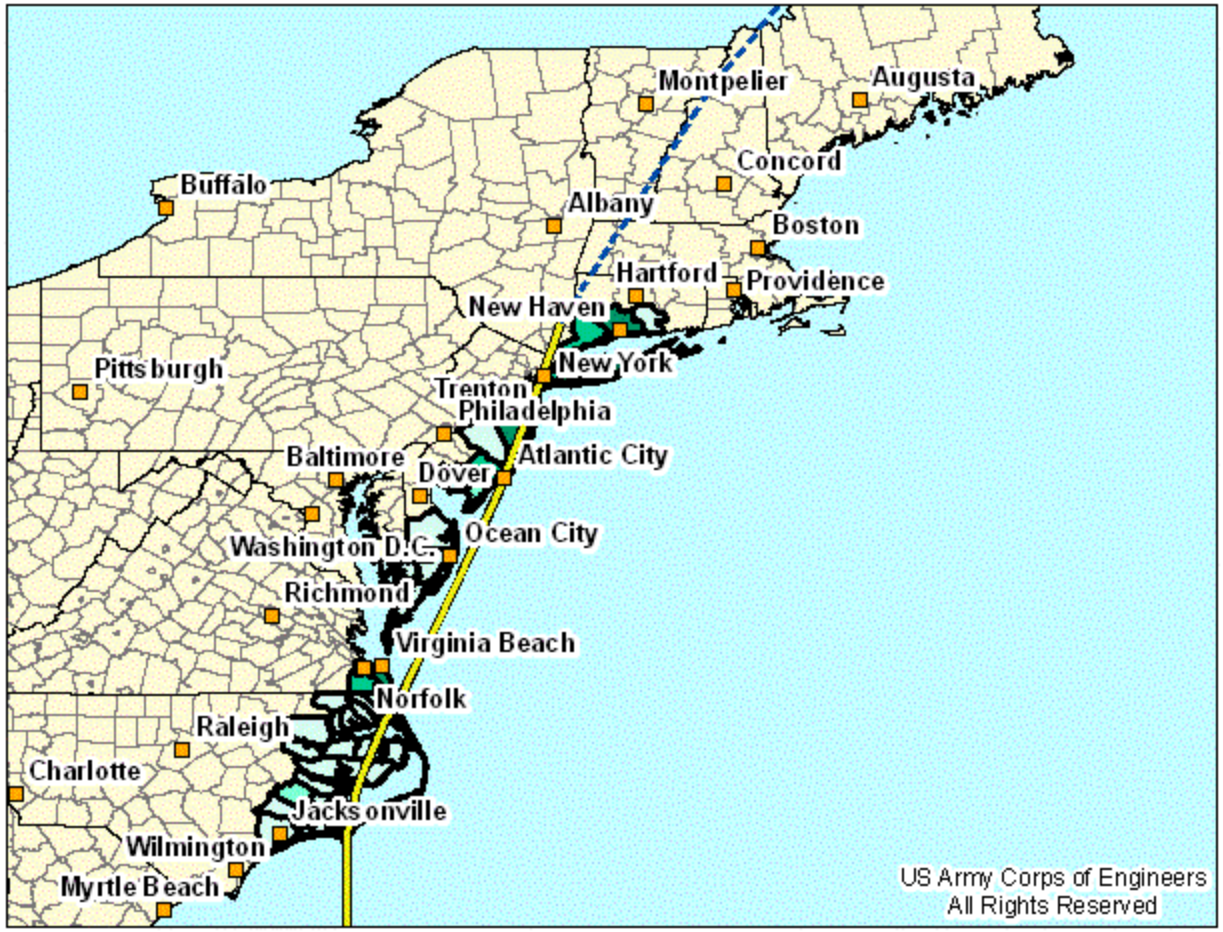
Sources:
HURREVAC
LRL-DEBRIS

Hurricane Irene Commodities Model

Landfall Plus About 1 Hours

US Army Corps of Engineers

For Planning Purposes Only!



Post Landfall Water Model Results

Day One / Day Two / Day Three

New York – 36/72/143 Truckloads
New Jersey – 18/36/73 Truckloads
Virginia – 14/28/53 Truckloads
Connecticut – 10/20/41 Truckloads
North Carolina – 8/16/32 Truckloads
Maryland – 2/3/5 Truckloads
Delaware – 1/2/4 Truckloads

Model results per County on following page

This model is based on a Category 1 storm making landfall western end of Long Island, NY.

Forecast Track
Historic Track

Commodities

- < 5 Trucks Each
- 5 - 10 Trucks Each
- 11 - 20 Trucks Each
- 21 - 40 Trucks Each
- > 40 Trucks Each

Information provided on this page displays a Category 1 storm making landfall western end of Long Island, NY. These projections are based on information from the NHC ***(1100 EDT 08/28/2011)*** forecast. The amount of commodities forecasted is based on Mission Guide Book requirements and SME input. The graphic represents daily needs with a ramp-up in the distribution system – three days for Points of Distribution (PODs) to be fully in place and operational. Volume shown is for each commodity – water and ice. Commodity need may be supplied by multiple agencies and/or sources.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Commodities Model	
Generated By: Siemsen, LRL 1130 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	Page 7 of 23

US Army Corps of Engineers

Hurricane Irene Commodities Model

Landfall Plus About 1 Hours

For Planning Purposes Only!

State	Truckloads per State	County	Truckloads per County
Connecticut		Fairfield County	16
		Middlesex County	1
		New Haven County	24
Connecticut	41		
Delaware		Sussex County	4
Delaware	4		
Maryland		Somerset County	1
		Wicomico County	1
		Worcester County	3
Maryland	5		
New Jersey		Atlantic County	14
		Burlington County	1
		Cape May County	6
		Cumberland County	1
		Mercer County	1
		Middlesex County	1
		Monmouth County	20
		Ocean County	29
New Jersey	73		
New York		Kings County	1
		Nassau County	58
		Queens County	13
		Suffolk County	71
New York	143		
North Carolina		Beaufort County	2
		Bertie County	1
North Carolina (continued)		Camden County	1
		Carteret County	4
		Chowan County	1
		Craven County	5
		Currituck County	2
		Dare County	3
		Gates County	1
		Hyde County	1
		Jones County	1
		Martin County	1
		Onslow County	2
		Pamlico County	1
		Pasquotank County	3
		Perquimans County	1
		Tyrrell County	1
		Washington County	1
North Carolina	32		
Virginia		Accomack County	2
		Chesapeake city	11
		Norfolk city	11
		Northampton County	1
		Portsmouth city	2
		Virginia Beach city	26
Virginia	53		

Source: US Army Corps of Engineers, All Rights Reserved

The amount of commodities forecasted is based on Mission Guide Book requirements and SME input and the above table indicates suggested daily needs based on full deployment of a commodities distribution system. Volume shown is for each commodity – water and ice. Commodity need may be supplied by multiple agencies and/or sources.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Commodities Model

Generated By:
Siemsen, LRL 1130 EDT 08/28/2011

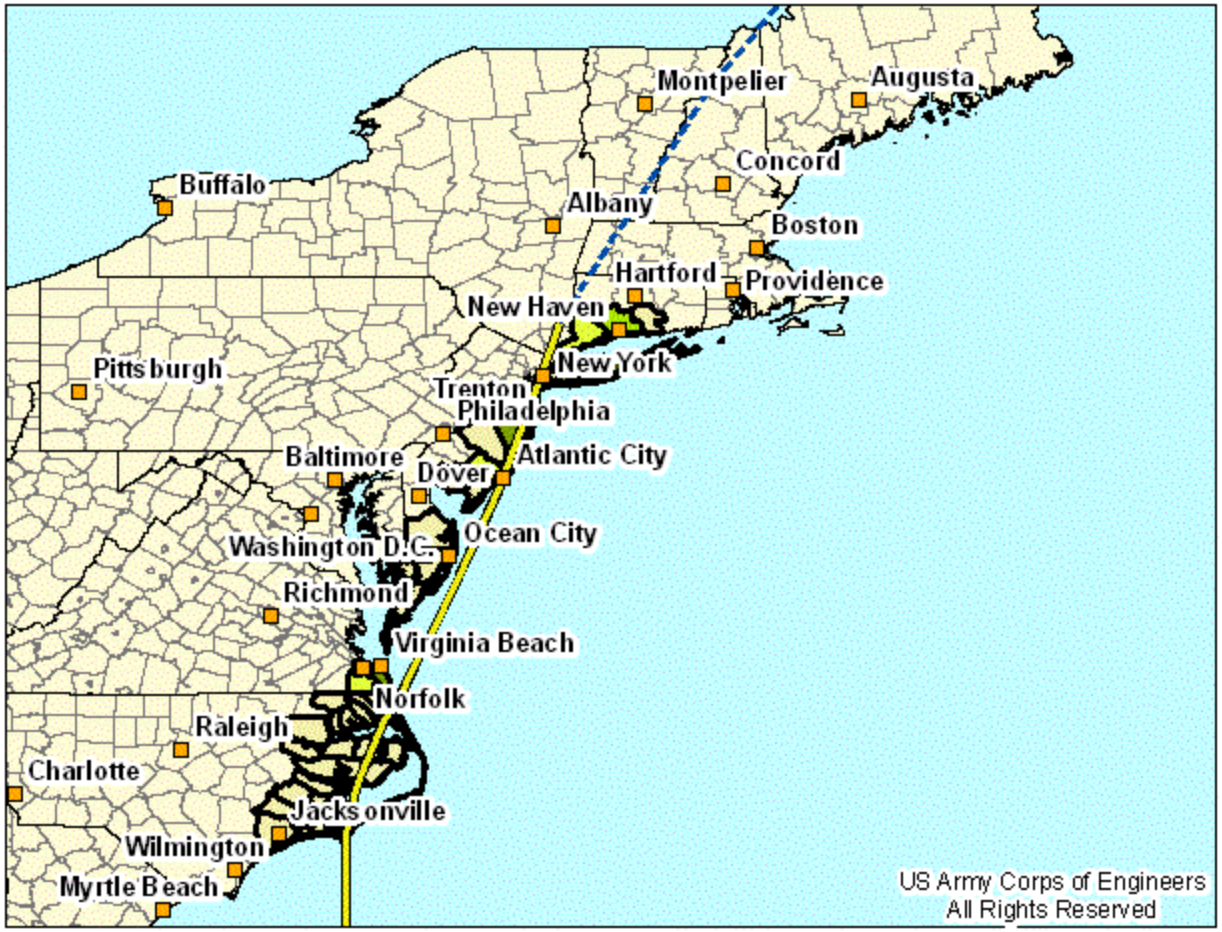
Sources:
HURREVAC
LRL-DEBRIS

Hurricane Irene Temporary Roofing Model

Landfall Plus About 1 Hours

US Army Corps of Engineers

For Planning Purposes Only!



Post Landfall Temporary Roofing Model Results

New York - 25,600
New Jersey - 18,400
Virginia - 13,000
Connecticut - 9,500
North Carolina - 6,600
Maryland - 1,000
Delaware - 900

Model results per County on following page

This model is based on a Category 1 storm making landfall western end of Long Island, NY.

Forecast Track
Historic Track

Temporary Roofing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 1 storm making landfall western end of Long Island, NY. These projections are based on information from the NHC (1100 EDT 08/28/2011) forecast. Temporary roofing is based on 5% in CAT 1.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Roofing Model	
Generated By: Siemsen, LRL 1130 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	Page 9 of 23

US Army Corps of Engineers

Hurricane Irene Temporary Roofing Model

Landfall Plus About 1 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County
Connecticut		Fairfield County	3,700
		Middlesex County	300
		New Haven County	5,500
Connecticut	9,500		
Delaware		Sussex County	900
Delaware	900		
Maryland		Somerset County	< 100
		Wicomico County	< 100
		Worcester County	1,000
Maryland	1,000		
New Jersey		Atlantic County	3,200
		Burlington County	< 100
		Cape May County	1,600
		Cumberland County	< 100
		Mercer County	200
		Middlesex County	< 100
		Monmouth County	5,400
		Ocean County	8,000
New Jersey	18,400		
New York		Kings County	< 100
		Nassau County	9,100
		Queens County	1,600
		Suffolk County	14,900
New York	25,600		
North Carolina		Beaufort County	300
		Bertie County	< 100

State	House Units per State	County	House Units per County
North Carolina		Camden County	200
(continued)		Carteret County	1,400
		Chowan County	300
		Craven County	1,100
		Currituck County	500
		Dare County	800
		Gates County	< 100
		Hyde County	< 100
		Jones County	< 100
		Martin County	< 100
		Onslow County	300
		Pamlico County	300
		Pasquotank County	800
		Perquimans County	300
		Tyrrell County	< 100
		Washington County	300
North Carolina	6,600		
Virginia		Accomack County	700
		Chesapeake city	2,800
		Norfolk city	2,300
		Northampton County	300
		Portsmouth city	500
		Virginia Beach city	6,400
Virginia	13,000		

Temporary roofing is based on 5% in CAT 1.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Roofing Model

Generated By:
Siemsen, LRL 1130 EDT 08/28/2011

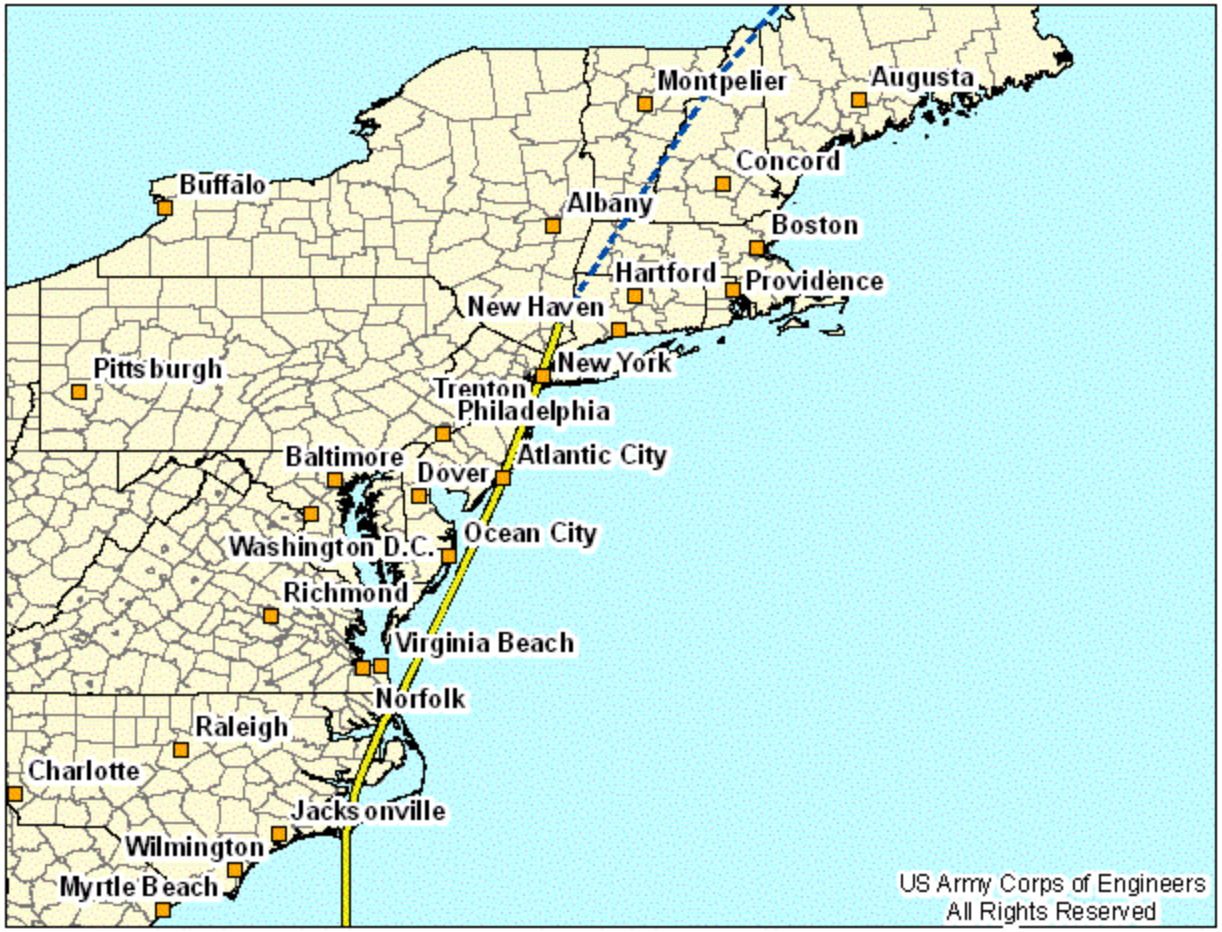
Sources:
HURREVAC
LRL-DEBRIS

Hurricane Irene Temporary Housing Model

Landfall Plus About 1 Hours

US Army Corps of Engineers

For Planning Purposes Only!



Post Landfall Temporary Housing Model Results

No significant Temporary Housing need expected

Model results per County on following page

This model is based on a Category 1 storm making landfall western end of Long Island, NY.

Forecast Track

Historic Track

Temporary Housing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 1 storm making landfall western end of Long Island, NY. These projections are based on information from the NHC (1100 EDT 08/28/2011) forecast. Temporary housing is based on nothing. The number indicated represents a possible need but not necessarily the scope of mission for USACE.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Housing Model	
Generated By: Siemsen, LRL 1130 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	Page 11 of 23

US Army Corps of Engineers

Hurricane Irene Temporary Housing Model

Landfall Plus About 1 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County

Temporary housing is based on nothing.
The number indicated represents a possible need but not necessarily the scope of mission for USACE.

Details about this model may be obtained at http://www.englink.usace.army.mil
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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Housing Model

Generated By:
Siemsen, LRL 1130 EDT 08/28/2011

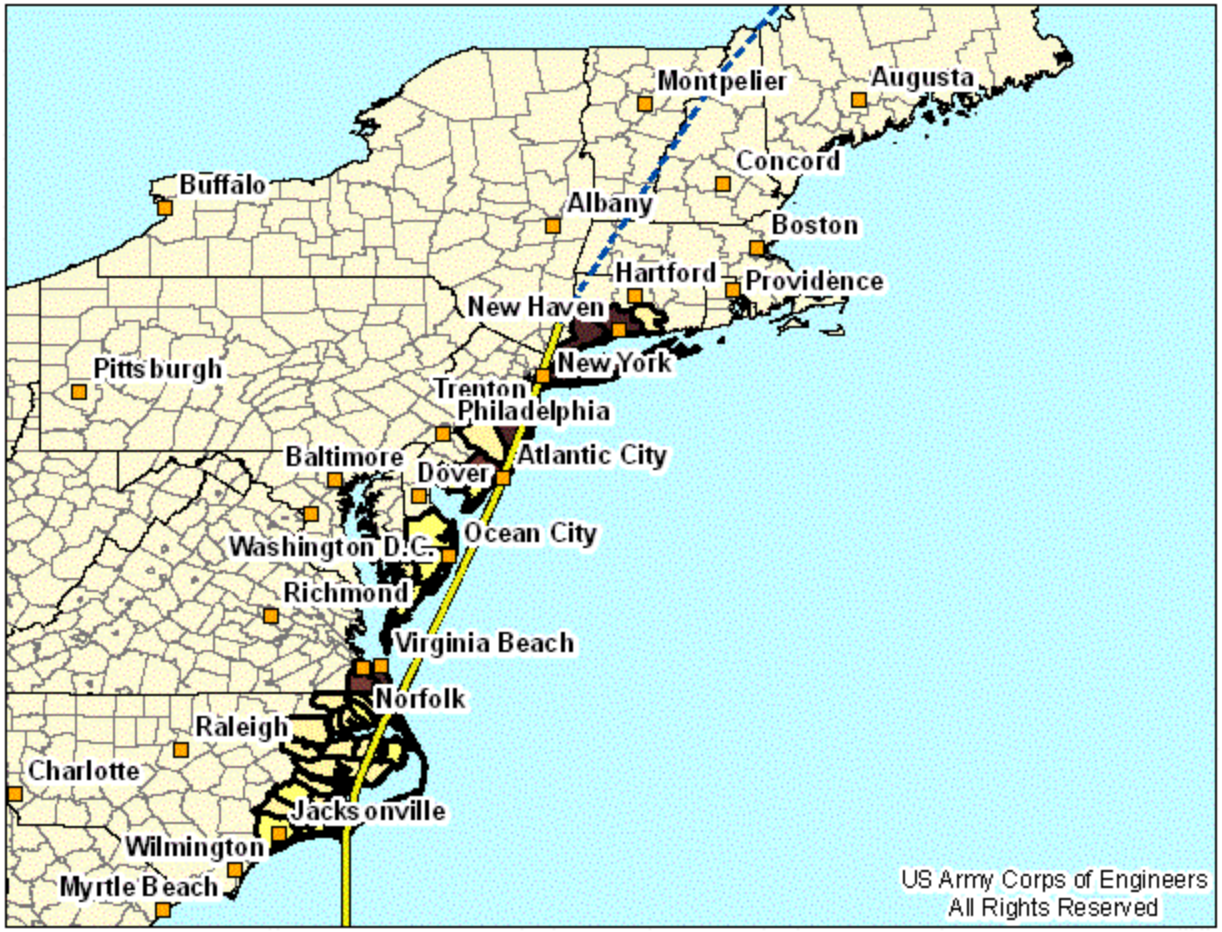
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Population Model

Landfall Plus About 1 Hours

For Planning Purposes Only!



Post Landfall Population Model Results

New York - 2,839,000
New Jersey - 1,356,000
Virginia - 881,000
Connecticut - 685,000
North Carolina - 373,000
Delaware - 58,000
Maryland - 49,000

Model results per County on following page

This model is based on a Category 1 storm making landfall western end of Long Island, NY.

Forecast Track
Historic Track

Population

- < 25,000 persons
- 25,000 - 99,999 persons
- 100,000 - 174,999 persons
- 175,000 - 249,999 persons
- > 250,000 persons

Information provided on this page displays a Category 1 storm making landfall western end of Long Island, NY. These projections are based on information from the NHC (1100 EDT 08/28/2011) forecast. The numbers of persons included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2010 values).

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Population Model	
Generated By: Siemsen, LRL 1130 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Irene Population Model

Landfall Plus About 1 Hours

For Planning Purposes Only!

State	Population per State	County	Population per County
Connecticut		Fairfield County	270,000
		Middlesex County	17,000
		New Haven County	398,000
Connecticut	685,000		
Delaware		Sussex County	58,000
Delaware	58,000		
Maryland		Somerset County	< 1,000
		Wicomico County	4,000
		Worcester County	45,000
Maryland	49,000		
New Jersey		Atlantic County	232,000
		Burlington County	5,000
		Cape May County	96,000
		Cumberland County	< 1,000
		Mercer County	11,000
		Middlesex County	2,000
		Monmouth County	436,000
		Ocean County	574,000
New Jersey	1,356,000		
New York		Kings County	< 1,000
		Nassau County	1,122,000
		Queens County	219,000
		Suffolk County	1,498,000
New York	2,839,000		
North Carolina		Beaufort County	20,000
		Bertie County	< 1,000

State	Population per State	County	Population per County
North Carolina		Camden County	10,000
(continued)		Carteret County	66,000
		Chowan County	13,000
		Craven County	75,000
		Currituck County	25,000
		Dare County	35,000
		Gates County	2,000
		Hyde County	6,000
		Jones County	3,000
		Martin County	< 1,000
		Onslow County	32,000
		Pamlico County	13,000
		Pasquotank County	42,000
		Perquimans County	13,000
		Tyrrell County	5,000
		Washington County	13,000
North Carolina	373,000		
Virginia		Accomack County	34,000
		Chesapeake city	185,000
		Norfolk city	181,000
		Northampton County	13,000
		Portsmouth city	32,000
		Virginia Beach city	436,000
Virginia	881,000		

The number of persons estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2010 values.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Population Model

Generated By:
Siemsen, LRL 1130 EDT 08/28/2011

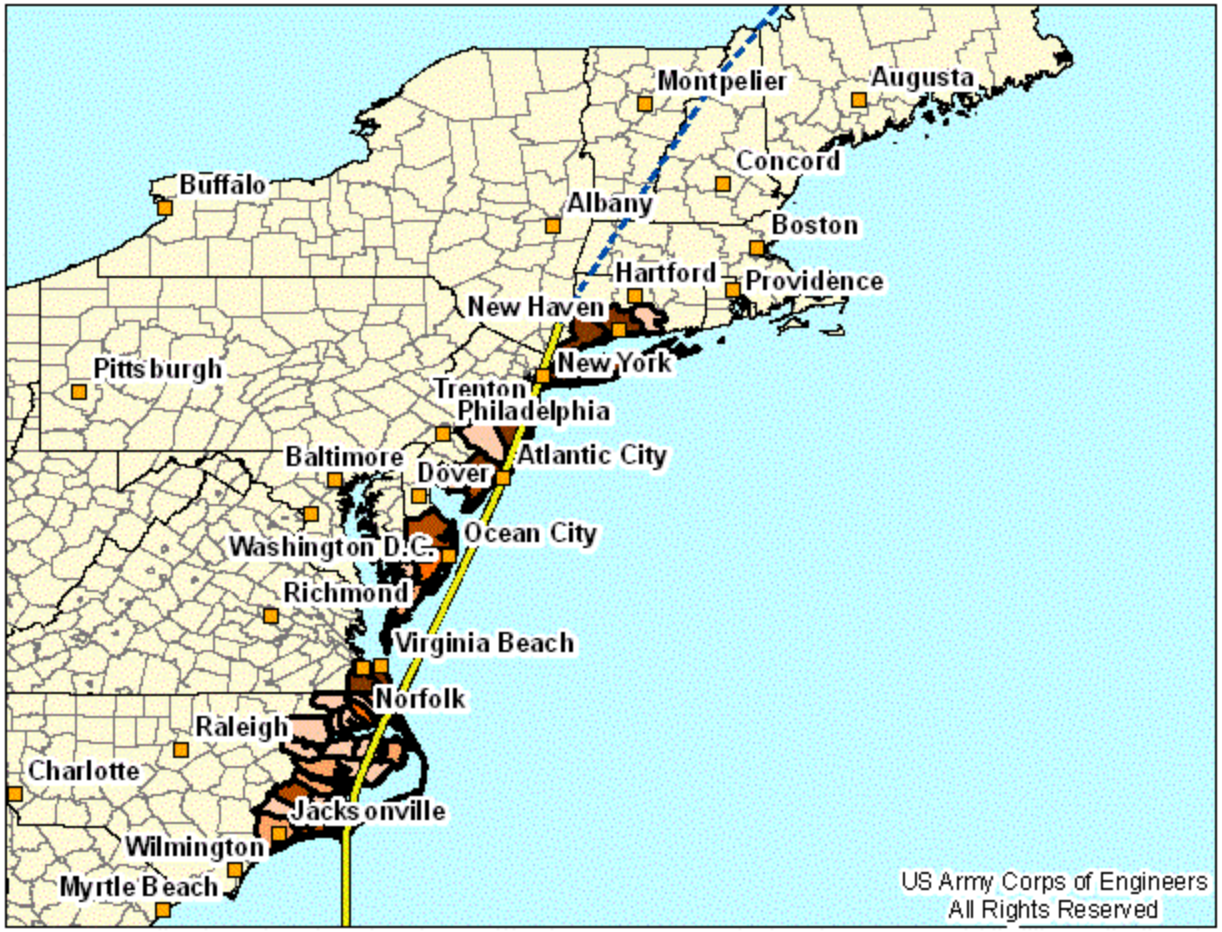
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Households Model

Landfall Plus About 1 Hours

For Planning Purposes Only!



Post Landfall Households Model Results

New York - 939,000
New Jersey - 525,000
Virginia - 327,000
Connecticut - 263,000
North Carolina - 145,000
Delaware - 26,000
Maryland - 22,000

Model results per County on following page

This model is based on a Category 1 storm making landfall western end of Long Island, NY.

Forecast Track
Historic Track

Households

- < 7,500 households
- 7,500 - 14,999 households
- 15,000 - 24,999 households
- 25,000 - 49,999 households
- > 50000 households

Information provided on this page displays a Category 1 storm making landfall western end of Long Island, NY. These projections are based on information from the NHC (1100 EDT 08/28/2011) forecast. The numbers of households included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2010 values).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Households Model	
Generated By: Siemsen, LRL 1130 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Irene Households Model

Landfall Plus About 1 Hours

For Planning Purposes Only!

State	Households per State	County	Households per County
Connecticut		Fairfield County	100,000
		Middlesex County	7,000
		New Haven County	156,000
Connecticut	263,000		
Delaware		Sussex County	26,000
Delaware	26,000		
Maryland		Somerset County	< 1,000
		Wicomico County	2,000
		Worcester County	20,000
Maryland	22,000		
New Jersey		Atlantic County	88,000
		Burlington County	2,000
		Cape May County	40,000
		Cumberland County	< 1,000
		Mercer County	4,000
		Middlesex County	< 1,000
		Monmouth County	165,000
		Ocean County	226,000
New Jersey	525,000		
New York		Kings County	< 1,000
		Nassau County	372,000
		Queens County	73,000
		Suffolk County	494,000
New York	939,000		
North Carolina		Beaufort County	8,000
		Bertie County	< 1,000

State	Households per State	County	Households per County
North Carolina		Camden County	4,000
(continued)		Carteret County	28,000
		Chowan County	5,000
		Craven County	28,000
		Currituck County	10,000
		Dare County	15,000
		Gates County	< 1,000
		Hyde County	2,000
		Jones County	2,000
		Martin County	< 1,000
		Onslow County	9,000
		Pamlico County	5,000
		Pasquotank County	16,000
		Perquimans County	6,000
		Tyrrell County	2,000
		Washington County	5,000
North Carolina	145,000		
Virginia		Accomack County	14,000
		Chesapeake city	65,000
		Norfolk city	71,000
		Northampton County	5,000
		Portsmouth city	13,000
		Virginia Beach city	159,000
Virginia	327,000		

The number of households estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2010 values.

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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Households Model

Generated By:
Siemsen, LRL 1130 EDT 08/28/2011

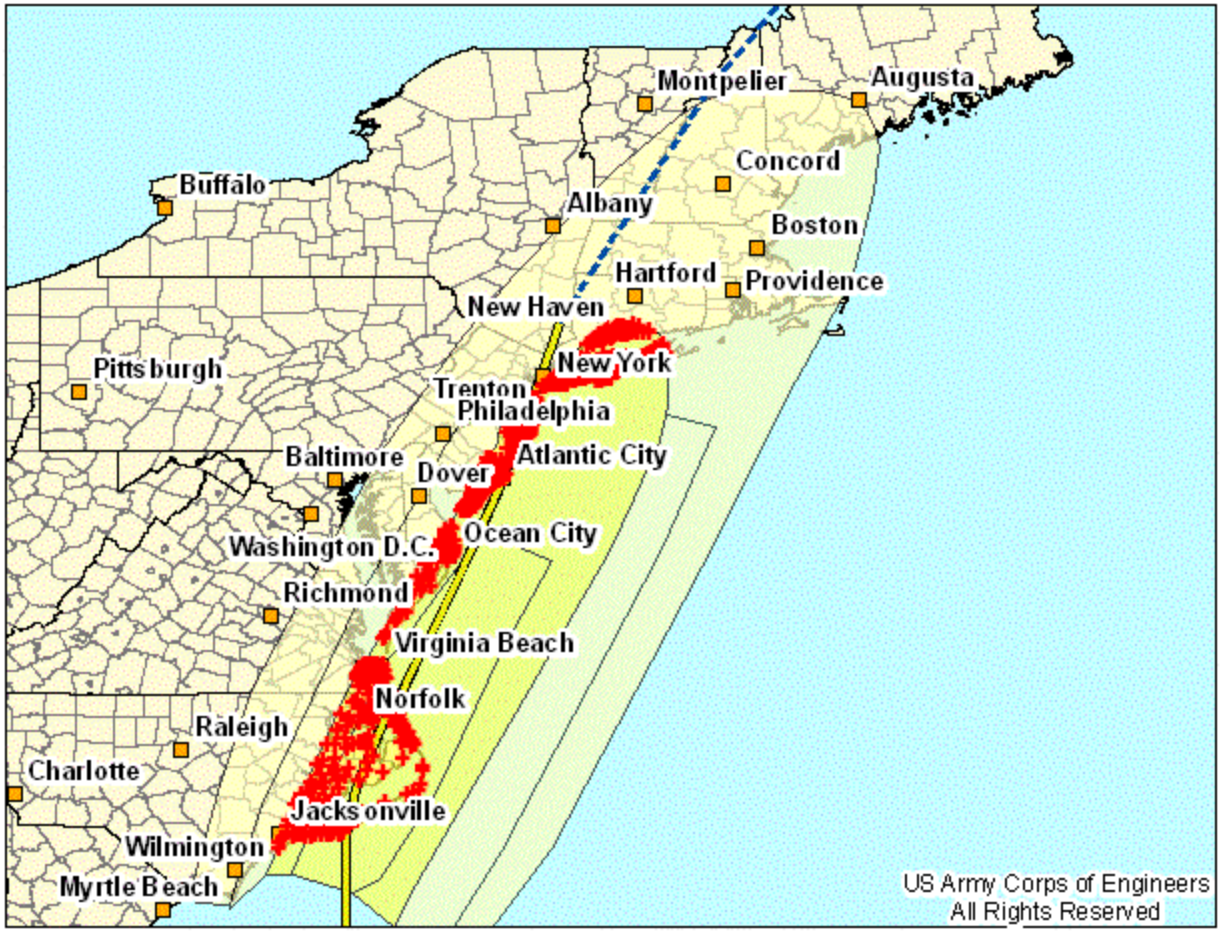
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Fire Stations

Landfall Plus About 1 Hours

For Planning Purposes Only!



Most Probable Landfall Fire Stations Inside Hurricane Force Winds

New York - 346
New Jersey - 247
North Carolina - 157
Connecticut - 72
Virginia - 70
Maryland - 21
Delaware - 15

Model results per County on following page

This model is based on a Category 1 storm making landfall western end of Long Island, NY.

+ Fire Stations
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall western end of Long Island, NY. These projections are based on information from the NHC (1100 EDT 08/28/2011) forecast.
The number of fire stations included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2011).

Details about this model may be obtained at http://www.englink.usace.army.mil
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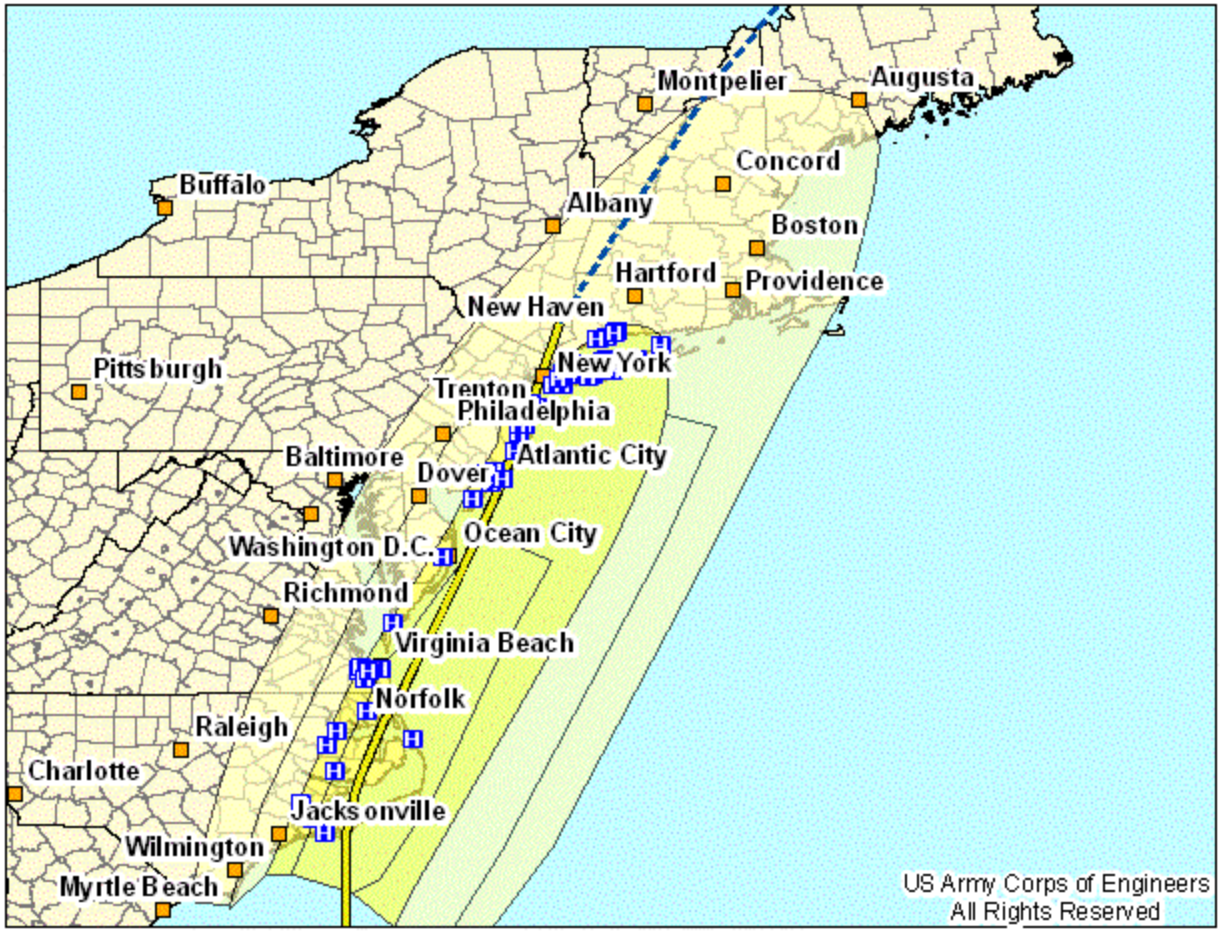
Hurricane Irene Fire Stations	
Generated By: Siemsen, LRL 1130 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	Page 17 of 23

US Army Corps of Engineers

Hurricane Irene Hospitals

Landfall Plus About 1 Hours

For Planning Purposes Only!



Most Probable Landfall Hospitals Inside Hurricane Force Winds

New Jersey - 23
New York - 22
Virginia - 12
North Carolina - 8
Connecticut - 8
Maryland - 1

Model results per County on following page

This model is based on a Category 1 storm making landfall western end of Long Island, NY.

Hospitals
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall western end of Long Island, NY. These projections are based on information from the NHC (1100 EDT 08/28/2011) forecast.

The number of hospitals included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2011).

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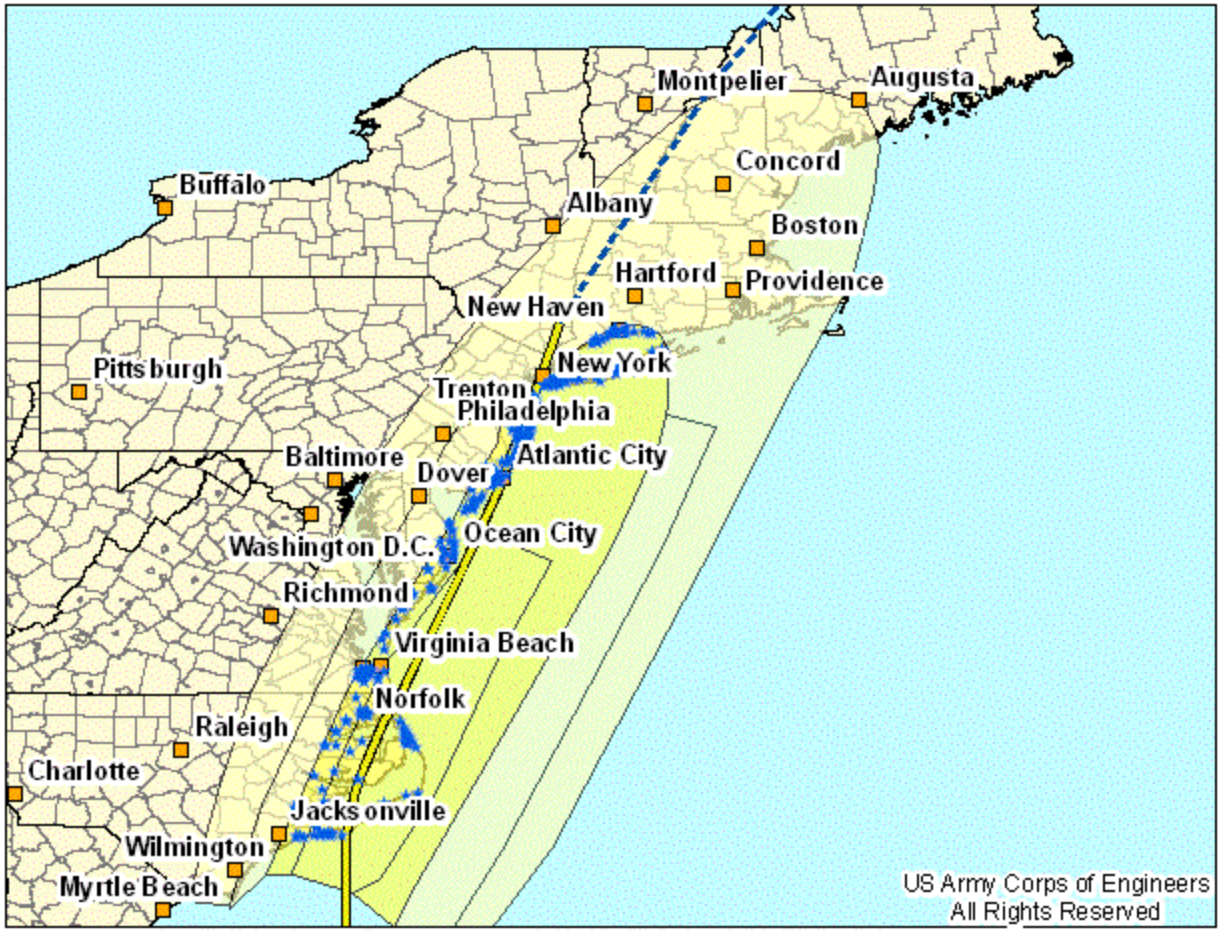
Hurricane Irene Hospitals	
Generated By: Siemsen, LRL 1130 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Irene Law Enforcement

Landfall Plus About 1 Hours

For Planning Purposes Only!



Most Probable Landfall Law Enforcement Inside Hurricane Force Winds

New Jersey - 111
New York - 83
North Carolina - 73
Virginia - 44
Connecticut - 29
Maryland - 12
Delaware - 10

Model results per County on following page

This model is based on a Category 1 storm making landfall western end of Long Island, NY.

- Law Enforcement
- Forecast Track
- Historic Track

Information provided on this page displays a Category 1 storm making landfall western end of Long Island, NY. These projections are based on information from the NHC (1100 EDT 08/28/2011) forecast.

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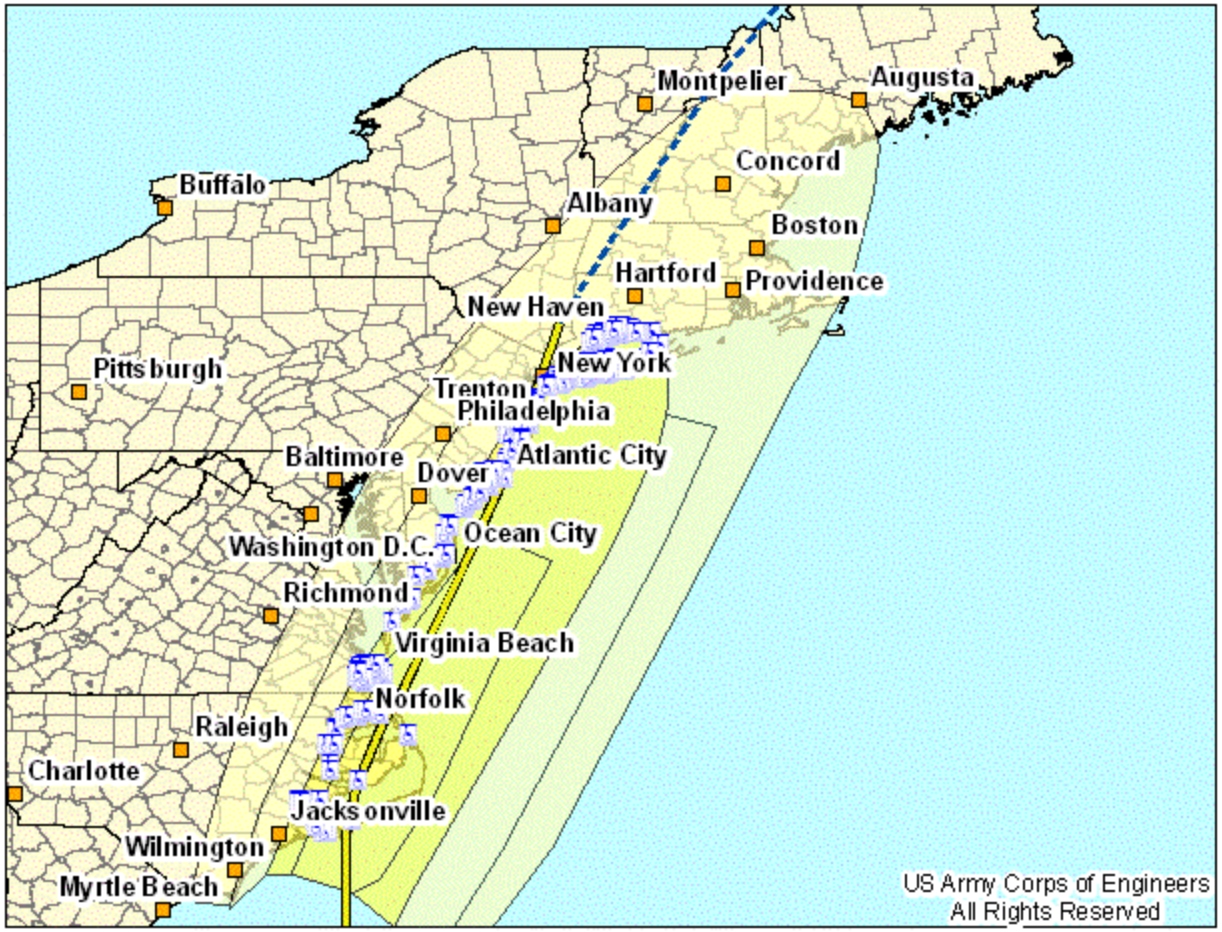
Hurricane Irene Law Enforcement	
Generated By: Siemsen, LRL 1130 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Irene Nursing Homes

Landfall Plus About 1 Hours

For Planning Purposes Only!



Most Probable Landfall Nursing Homes Inside Hurricane Force Winds

New York - 156
New Jersey - 115
Virginia - 80
Connecticut - 68
North Carolina - 43
Maryland - 7
Delaware - 4

Model results per County on following page

This model is based on a Category 1 storm making landfall western end of Long Island, NY.

Nursing Homes
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall western end of Long Island, NY. These projections are based on information from the NHC (1100 EDT 08/28/2011) forecast.

The number of nursing homes included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2011).

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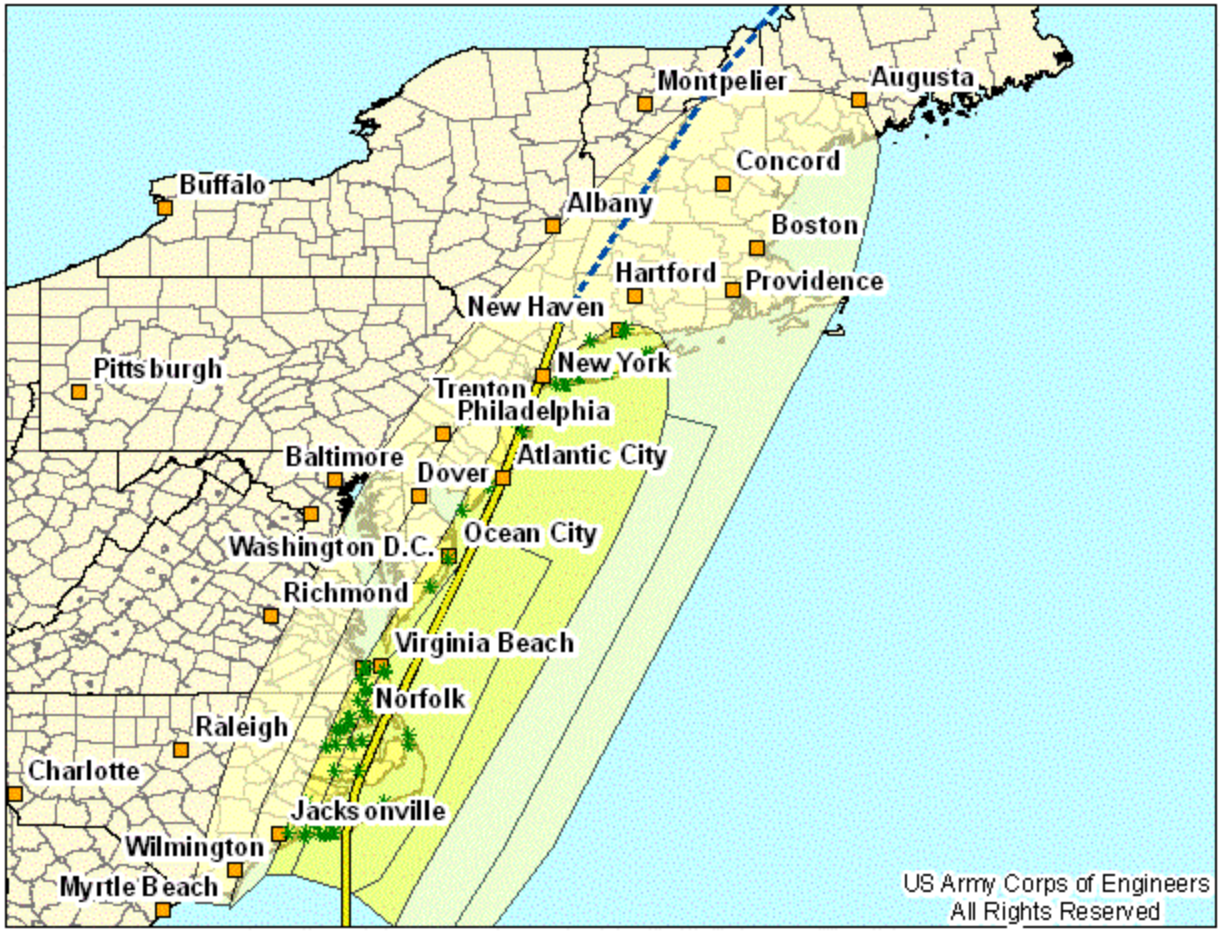
Hurricane Irene Nursing Homes	
Generated By: Siemsen, LRL 1130 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Irene Potable Water

Landfall Plus About 1 Hours

For Planning Purposes Only!



Most Probable Landfall Potable Water Inside Hurricane Force Winds

North Carolina - 31
New York - 12
Virginia - 10
New Jersey - 4
Connecticut - 3
Maryland - 1

Model results per County on following page

This model is based on a Category 1 storm making landfall western end of Long Island, NY.

Potable Water
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall western end of Long Island, NY. These projections are based on information from the NHC (1100 EDT 08/28/2011) forecast.

The number of potable water included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2011).

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Hurricane Irene Potable Water	
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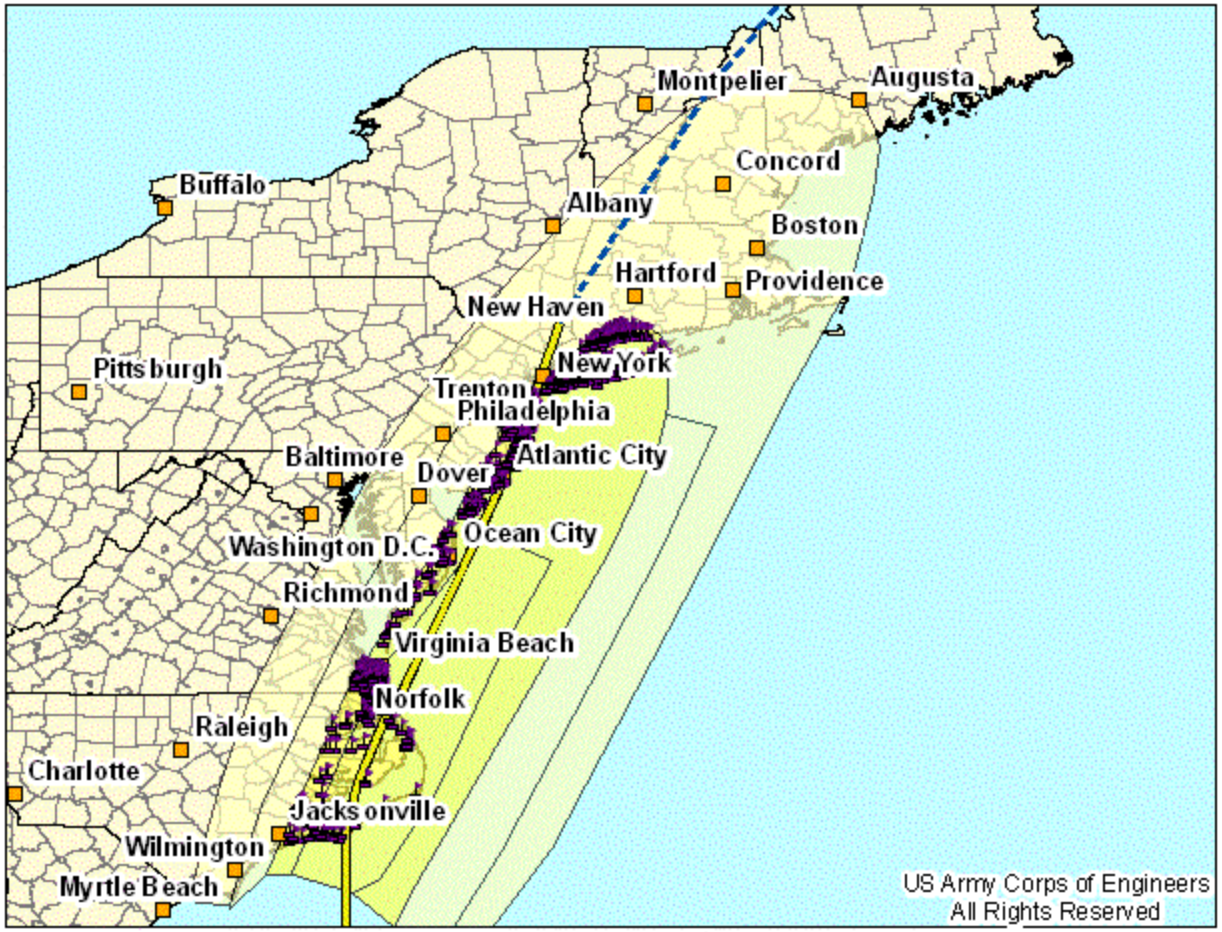
Sources: HURREVAC LRL-DEBRIS	Page 21 of 23

US Army Corps of Engineers

Hurricane Irene Schools

Landfall Plus About 1 Hours

For Planning Purposes Only!



Most Probable Landfall Schools Inside Hurricane Force Winds

New York - 644
New Jersey - 358
Virginia - 232
Connecticut - 215
North Carolina - 113
Maryland - 15
Delaware - 10

Model results per County on following page

This model is based on a Category 1 storm making landfall western end of Long Island, NY.

Schools
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall western end of Long Island, NY. These projections are based on information from the NHC (1100 EDT 08/28/2011) forecast.

The number of schools included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2011).

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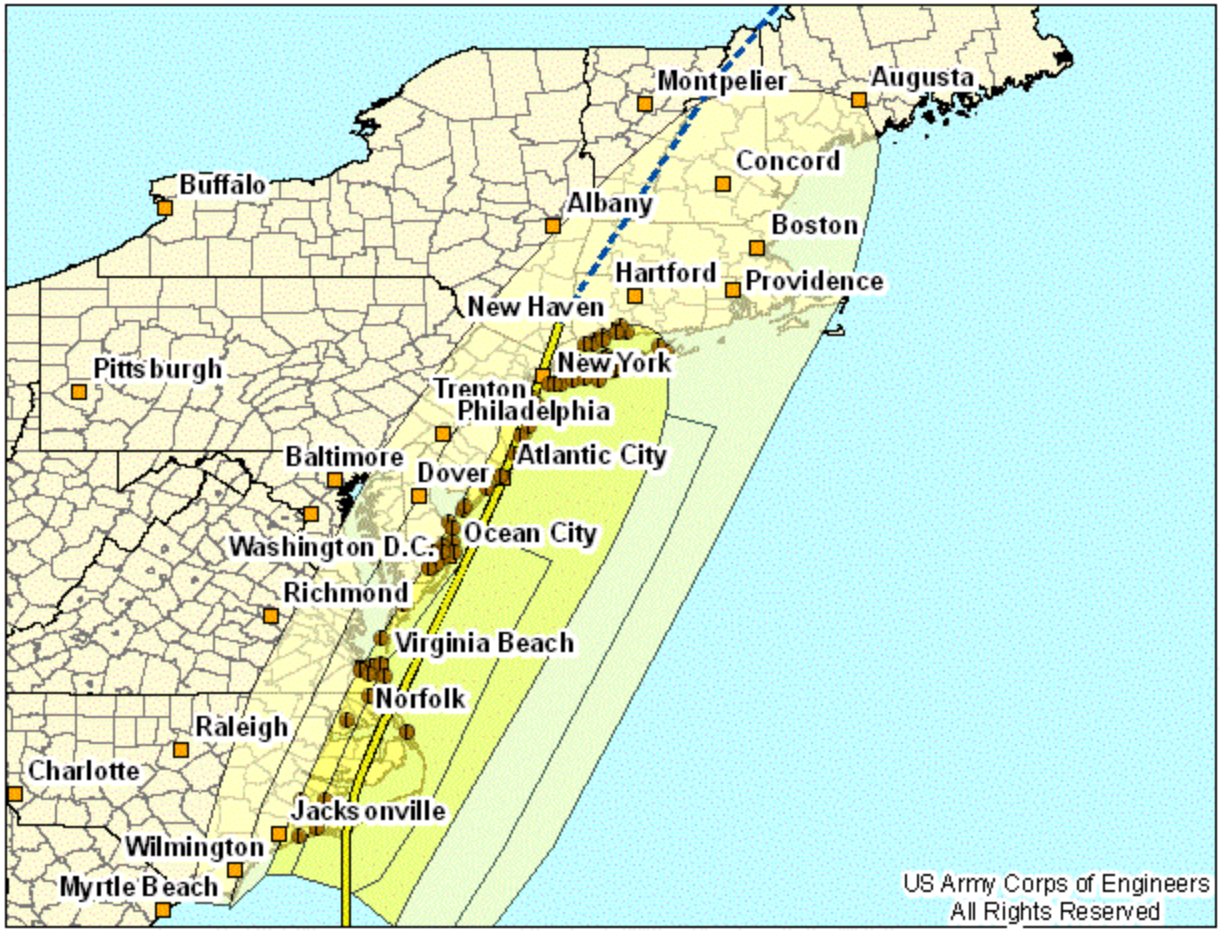
Hurricane Irene Schools	
Generated By: Siemsen, LRL 1130 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	Page 22 of 23

US Army Corps of Engineers

Hurricane Irene Sewage Treatment Plants

Landfall Plus About 1 Hours

For Planning Purposes Only!



Most Probable Landfall Sewage Treatment Plants Inside Hurricane Force Winds

New York - 38
New Jersey - 18
Connecticut - 10
Virginia - 9
North Carolina - 8
Maryland - 8
Delaware - 4

Model results per County on following page

This model is based on a Category 1 storm making landfall western end of Long Island, NY.

- Sewage Treatment Plants
- Forecast Track
- Historic Track

Information provided on this page displays a Category 1 storm making landfall western end of Long Island, NY. These projections are based on information from the NHC (1100 EDT 08/28/2011) forecast.

The number of sewage treatment plants included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2011).

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Hurricane Irene Sewage Treatment Plants	
Generated By: Siemsen, LRL 1130 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	